

Rediscovery of *Vanda alpina*, a rare epiphytic orchid in Western Himalaya, India^a

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Key words/mots-clés : *Vanda alpina*, Western Himalaya, Gori valley.

Abstract

Vanda alpina (Lindley) Lindley was rediscovered in the Western Himalaya after a gap of 105 years. The present paper gives a brief description with an illustration and discusses the present status of this species.

Résumé

Redécouverte de *Vanda alpina*, une orchidée épiphyte rare, en Himalaya occidental, Inde – *Vanda alpina* (Lindley) Lindley a été redécouvert dans l'Himalaya occidental après une absence d'observation de 105 ans. Cet article en propose une brève description accompagnée d'illustrations et discute le statut de conservation de l'espèce.

Due to the beauty of its flowers, the genus *Vanda* is one of the most beautiful and horticultural important groups of orchids. It comprises about 40 species (Motes, 2001), most of which to be found in India, Himalayas, SE Asia, Indonesia, the Philippines, New Guinea, southern China and northern Australia. In India, the genus is represented by 12 species (Mishra, 2007) and five species are reported from western Himalaya. The name of the genus is derived from the Sanskrit designation of *Vanda tessellata*.

During a field visit to eastern part of Kumaun Region of the State of Uttarakhand in June 2010, an interesting epiphytic orchid was seen by the first author in bloom. After thorough scrutiny of the literature (Duthie,

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1906 a, b; Seidenfaden & Arora, 1982; Deva & H.B.Naithani, 1986; Balodi, 1987; Pangtey *et al.*, 1991; Singh, 2001; Uniyal *et al.*, 2007; Jalal *et al.*, 2008), it was identified as *Vanda alpina* (Lindley) Lindley. Persusal of literature also revealed that this species was reported more than 100 years ago by T. Thomson from an unknown location in Garhwal Himalaya and by Strachey and Winterbotton, who reported it from the Kumaun Region. Again, the authors did not give any details about the exact locality of their sighting (cfr. Duthie, 1906). Over the past hundred years the region was often visited by botanists but this species was never recollected, hence our findings represent rediscovery for this region. The present paper gives a brief description with illustration and discusses the conservation status of this species.

Taxonomic descriptions

Vanda alpina (Lindley) Lindley, *Folia Orchidacea* Vanda:10 (1853); Hooker f., *Flora of British India* 6: 53 (1890); King & Pantling, *Annals of the Royal Botanic Garden* (Calcutta) 8: 217, t. 289 (1898); Duthie, *Annals of the Royal Botanic Garden* (Calcutta) 9 (2): 164 (1906); *Catalog of Plants Kumaun*: 178 (1906); Seidenfaden & Arora, *Nordic Journal of Botany* 2: 25 (1982); Deva & Naithani, *The Orchid Flora of North-West Hymalaya*: 435, t. 253 (1986); Pangtey *et al.*, *Orchids Kumaun Himalaya*:174 (1991).

Luisia alpina Lindley in *Edwards's Botanical Register* 24(Misc.): 56 (1838).

Stauroopsis alpina (Lindley) Tang & F.T. Wang, *Acta Phytotaxonomica Sinica* 1: 93 (1951).

Trudelia alpina (Lindley) Garay, *Orchid Digest* 50: 76 (1986).

Epiphytic herb, 7-20 cm tall. Stem, stout, 7-15 cm long, covered by overlapping leaf sheaths. Leaves many, narrowly oblong, conduplicate, 5-14 × 0.7-1.3 cm, unequally bilobed at the apex. Inflorescence, a drooping raceme, much shorter than the leaves, 1 or 2 flowered. Peduncle, glabrous, 1-2 cm long. Floral bracts, ovate-triangular, 2-3 mm, apex obtuse-acute. Flowers thickly textured, partly open, drooping 1.2-2 cm across, green to yellow-green, lip green, basal sac maroon-purple, apical laminate stripe violet, column white. Pedicel and ovary ridged, glabrous, 1.3-2 cm long. Dorsal sepal spreading, 5-veined, elliptic-ovate, obtuse, 12-14 × 3-5 mm; lateral sepals spreading, similar to the dorsal sepal. Petals spreading, obovate, obtuse, 5-veined, 11-13 × 3-4 mm. Lip adnate to the column, gibbose, but

not saccate, 3-lobed, 13-14 × 6- 8 mm; lateral lobes small, entire; mid lobe, shallow, rounded, surface ridged-lamellate, apex obscurely 3-lobed. Column fleshy, no foot, 3-4 mm long. (Fig. 1 and colour plate page 172).

Flowering: June-July, *Fruiting:* August-September.

Specimen examined: WII- J.S.Jalal 15049.

Etymology: The species name is derived from the Latin word *alpina* (alpine).

Distribution in Western Himalaya: Uttarakhand: Pithoragarh district-Dunapani (Gori valley).

General distribution: Western Himalaya (Uttarakhand), Sikkim, Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Mizoram; Bhutan, Nepal, China (Yunnan) and Vietnam.

Habitat: this species occurs in regions with climate intermediate between subtropical (generally occurring in the foothills of the lower Himalaya between 500 and 1500 m) and warm temperate (occurring from 1200 to 2000 m and having an annual average rainfall of 1000-2500 mm), at 1000-2000 m altitude. It grows on tree trunks of *Quercus leucotrichophora* A. Camus.

Status: Only few individuals have been seen in the small forest patch on the right bank of the Goriganga River in Gori Valley (Kumaun Himalaya). The particular forest patch is dominated by the Banj-oak (*Quercus leucotrichophora*) forest, which is one of the most favourite 'fodder and fuel' species in this hill region. Due to the fragmentation of this forest, this species is facing the danger of extinction.

It is assessed as Critically Endangered CR B1a;D following IUCN (2001).

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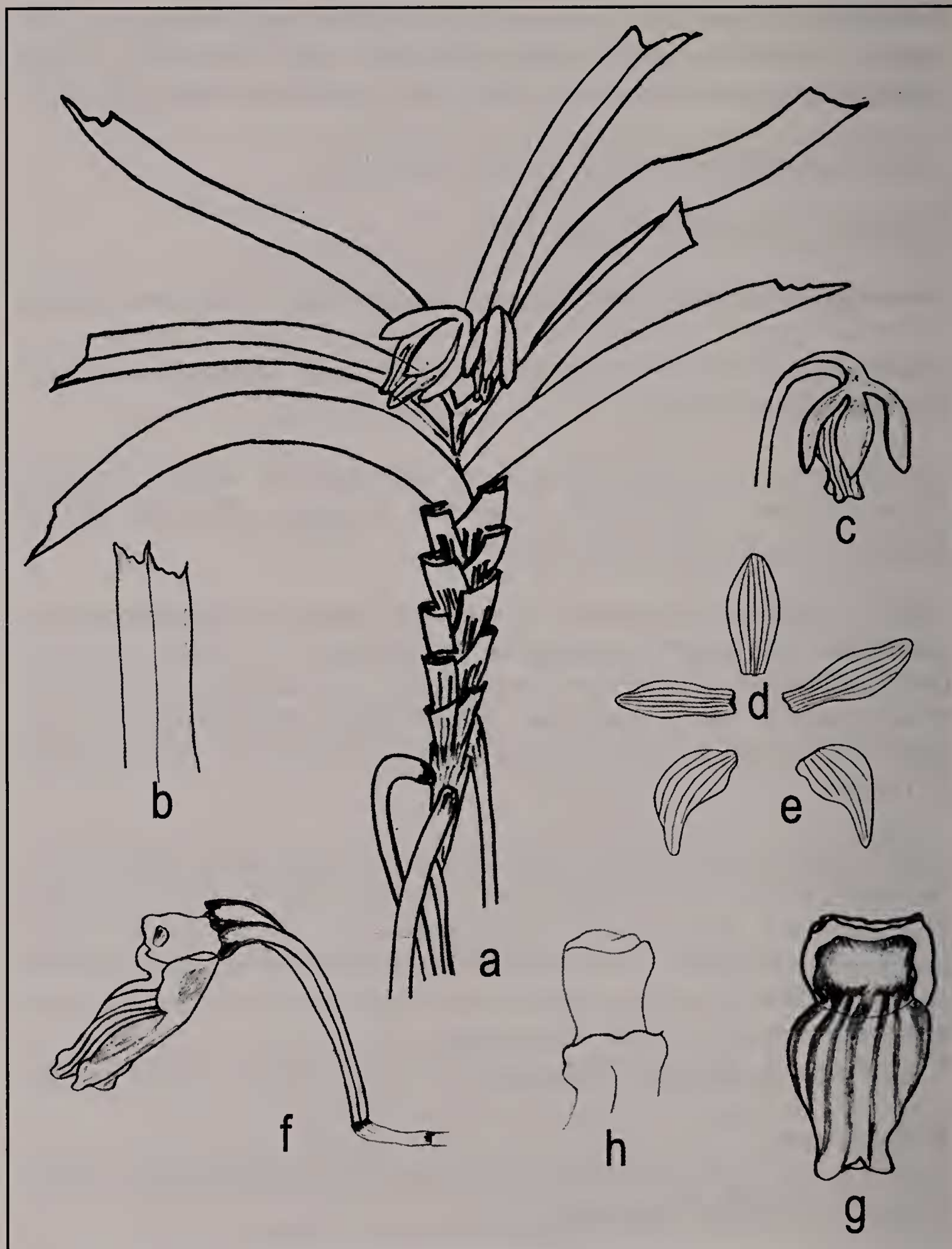


Fig. 1 : *Vanda alpina*

(a) habit, (b) leaf portion showing its apex, (c) flower, (d) sepals, (e) petals, (f) lip, column and ovary, (g) lip, (h) column

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Le genre *Vanda* comprend environ 40 espèces dont la majorité est originaire d'Inde, Himalaya, Asie du sud-est, Indonésie, Philippines, Nouvelle Guinée, Chine et nord-est de l'Australie. En Inde, il est représenté par 12 espèces, dont cinq enregistrées pour l'Himalaya occidentale. Au cours d'une sortie botanique dans la partie orientale de la région de Kumaun, dans l'Etat de Uttarakhand, en juin 2010, une orchidée épiphyte intéressante a été observée, en fleurs. Après examen approfondi de la littérature, elle fut identifiée comme *Vanda alpina*. Cette même littérature indique que cette espèce, signalée il y a plus de cent ans par T. Thomson dans le Garhwal Himalaya et par Strachey & Winterbottom dans la région de Kumaun, n'a jamais été signalée à nouveau dans cette région.

Notre observation est donc une redécouverte. Le présent article donne une brève description de l'espèce, accompagnée d'illustrations et discute son statut de conservation.

Période de floraison : juin-juillet – de fructification : août-septembre.

Étymologie : l'épithète spécifique vient du mot latin *alpina* (alpin).

Habitat : l'espèce se rencontre dans les régions sub-tropicales et tempérées chaudes, entre 1 000 et 2 000 m d'altitude ; elle pousse sur les troncs de *Quercus leucotrichophora*.

Statut de conservation : seuls quelques individus ont été vus dans un petit morceau de forêt sur la rive de la rivière Goriganza, dans la vallée de Gory (Kumaun Himalaya). Cette parcelle de forêt est dominée par le chêne Banj (*Quercus leucotrichophora*) qui est le combustible favori dans cette région de montagne. Du fait de la fragmentation de cette forêt, *Vanda alpina* est menacée d'extinction.

Colour plate page 172 : (a) habit, (b) inflorescence, (c) flower

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